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Docket No. LOT920030070US1 (7321-024U)

PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of	:	Customer Number: 46321
	:	
Fernando Salazar et al.	:	Confirmation Number: 1335
	:	
Application No.: 10/734,965	:	Group Art Unit: 2162
	:	
Filed: 12/15/2003	:	Examiner: Baoquoc N. To
	:	
For: CUSTOMIZABLE DATA TRANSLATION METHOD AND SYSTEM	:	

APPEAL BRIEF

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This Appeal Brief is submitted in support of the Notice of Appeal filed November 23, 2007, wherein Appellants appeal from the Examiner's rejection of claims 1, 4-5, 7-9, 12-13, 15-17, 20-21, 23 and 24.

I. REAL PARTY IN INTEREST

This application is assigned to International Business Machines Corporation by assignment recorded on December 15, 2003, at Reel 014802, Frame 0375.

II. RELATED APPEALS AND INTERFERENCES

Appellants are unaware of any related appeals and interferences.

III. STATUS OF CLAIMS

Claims 2, 3, 6, 10, 11, 14, 18, 19 and 22 were cancelled. Claims 1, 4-5, 7-9, 12-13, 15-17, 20-21, 23 and 24 are pending in this Application and have been twice rejected. It is from the multiple rejections of claims 1, 4-5, 7-9, 12-13, 15-17, 20-21, 23 and 24 that this Appeal is taken.

IV. STATUS OF AMENDMENTS

The claims have not been amended subsequent to the imposition of the second Non-Final Office Action dated August 22, 2007 (hereinafter the second Non-Final Office Action).

V. SUMMARY OF CLAIMED SUBJECT MATTER

Independent claim 1 is directed to a method of transforming user information and course information from a source database in an e-learning model to a target database in a learning management system. (lines 1-5 of paragraph [0010] of Appellants' disclosure). The method of transforming user information and course information from a source database in an e-learning model to a target database in a learning management system can include converting the user and course information to a format compatible with the target database, where the converted user and course information contain object identification information. (lines 5-11 of paragraph [0021]).

The method of transforming user information and course information from a source database in an e-learning model to a target database in a learning management system can further include matching object identifiers with corresponding object identification information contained in the converted user and course information if there is an existing directory containing object identifiers related to the object identification information contained in the converted user

and course information, loading the converted user and course information into the target database, and storing unmatched object identifiers for manual handling. (lines 6-12 of paragraph [0011]).

The method of transforming user information and course information from a source database in an e-learning model to a target database in a learning management system can still further include creating a file containing the unmatched object identifiers having a format similar to the converted user information and course information and if more than one potential match is found creating a file containing the potential matches and re-generating the matching process. (lines 1-7 of paragraph [0028]; figure 3, items 52, 54, 56, 58 and 60).

VI. GROUNDS OF REJECTIONS TO BE REVIEWED ON APPEAL

1. Claims 17, 20-21, 23 and 24 have been rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter.
2. Claims 1, 4-5, 9, 12-13, 17 and 20-21 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,016,501 to Martin et al. (Martin) in view of U.S. Patent No. 6,985,905 to Prompt et al. (Prompt) and in further view of U.S. Patent No. 6,978,115 to Whitehurst et al. (Whitehurst).
3. Claims 8, 15 and 23 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Martin in view of Prompt and in view of Whitehurst and further in view of U.S. Patent No. 5,819,291 to Haimowitz et al. (Haimowitz).

4. Claims 7, 16 and 24 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Martin in view of Prompt and in view of Whitehurst and further in view of Haimowitz and further in view of U.S. Patent No. 6,058,239 to Doyle (Doyle).

VII. THE ARGUMENT

THE REJECTION OF CLAIMS 17, 20-21 and 23-24 UNDER 35 U.S.C § 101(FOR NON-STATUTORY SUBJECT MATTER)

For the convenience of the Honorable Board in addressing the rejections, claims 20-21 and 23-24 stand or fall together with claim 17.

On page 2 of the Office Action, the Examiner asserted that the claimed invention, as recited in claims 17, 20-21 and 23-24, are directed to non-statutory subject matter. This rejection is respectfully traversed. In *State Street Bank and Trust Company v. Signature Financial Group, Inc.*, 149 F.3d 1368, 47 USPQ2d 1596 (Fed Cir. 1998), the court set forth the criteria for establishing statutory subject matter under 35 U.S.C. § 101 as follows:

The question of whether a claim encompasses statutory subject matter should not focus on which of the four categories of subject matter a claim is directed to —process, machine, manufacture, or composition of matter—but rather on the essential characteristics of the subject matter, in particular, its practical utility. Section 101 specifies that statutory subject matter must also satisfy the other "conditions and requirements" of Title 35, including novelty, nonobviousness, and adequacy of disclosure and notice. See *In re Warmerdam*, 33 F.3d 1354, 1359, 31 USPQ2d 1754, 1757-58 (Fed. Cir. 1994). For purpose of our analysis, as noted above, claim 1 is directed to a machine programmed with the Hub and Spoke software and admittedly produces a "useful, concrete, and tangible result." *Alappat*, 33 F.3d at 1544, 31 USPQ2d at 1557. This renders it statutory subject matter, even if the useful result is expressed in numbers, such as price, profit, percentage, cost, or loss.

Thus, as articulated above, the test for determining whether subject matter is patentable under 35 U.S.C. § 101 involves deciding if the subject matter produces a "useful, concrete, and tangible result."

A discussion of the procedural considerations regarding a rejection based upon lack of utility (i.e., 35 U.S.C. § 101) is found in M.P.E.P. § 2107.02. Specifically, M.P.E.P. § 2107.02(I) states that:

regardless of the category of invention that is claimed (e.g., product or process), an applicant need only make one credible assertion of specific utility for the claimed invention to satisfy 35 U.S.C. 101 and 35 U.S.C. 112

In paragraph [0009] of Appellants' disclosure, it is stated that in the invention as claimed, user and course-related data in an LMS is translated to a format consistent with an LMS target database. The Appellants, therefore, have asserted a credible utility. Moreover, independent claim 17 explicitly recites a "data transformation tool" for transforming user information and course information from a source database in an e-learning model to a target database in a learning management system and such tools are known to one of reasonable skill in the art. As noted in M.P.E.P. § 2107.02(III)(A), the Court of Customs and Patent Appeals in *In re Langer* stated the following:

As a matter of Patent Office practice, a specification which contains a disclosure of utility which corresponds in scope to the subject matter sought to be patented must be taken as sufficient to satisfy the utility requirement of § 101 for the entire claimed subject matter unless there is a reason for one skilled in the art to question the objective truth of the statement of utility or its scope. (emphasis in original)

Since a credible utility is contained in Appellants' specification, the utility requirement of 35 U.S.C. § 101 (i.e., whether the invention produces a useful, concrete, and tangible result) has been met. Moreover, Therefore, Appellants respectfully assert that the Examiner erred in imposing the rejection of claims 17, 20-21 and 23-24 under 35 U.S.C. § 101.

THE REJECTION OF CLAIMS 1, 4-5, 9, 12-13, 17 and 20-21 UNDER 35 U.S.C § 103(A)
FOR OBVIOUSNESS BASED UPON MARTIN IN VIEW OF PROMPT AND FURTHER IN VIEW OF
WHITEHURST

For the convenience of the Honorable Board in addressing the rejections, claims 4-5 and 7-8 stand or fall together with claim 1, claims 12-13 and 15-16 stand or fall together with claim 9, and claims 20-21 and 23-24 stand or fall together with claim 17.

The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, (3) the level of skill in the art, and (4) where in evidence, so-called secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18, 148 USPQ 459, 467 (1966). *See also KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1734, 82 USPQ2d 1385, 1391 (2007) (“While the sequence of these questions might be reordered in any particular case, the [*Graham*] factors continue to define the inquiry that controls.”).

Appellants’ independent claim 1 expressly refers to transforming user information and course information from a source database in an e-learning model to a target database in a learning management system, where the converted user and course information contains object identification information. Further, Appellants’ independent claim 1 further expressly refers to matching object identifiers with corresponding object identification information contained in the converted user and course information if there is an existing directory containing object identifiers related to the object identification information contained in the converted user and

course information, and loading the converted user and course information into the target database. Yet, Martin fails to teach or even mention a “learning progress” or “LMS” or “user information” or “course information” for an “e-learning model”. Exemplary claim 1 recites as follows:

1. A method of transforming user information and course information from a source database in an e-learning model to a target database in a learning management system, the method comprising:
 - converting the user and course information to a format compatible with the target database, the converted user and course information containing object identification information;
 - matching object identifiers with corresponding object identification information contained in the converted user and course information if there is an existing directory containing object identifiers related to the object identification information contained in the converted user and course information, and loading the converted user and course information into the target database; and,
 - storing unmatched object identifiers for manual handling.

In the second full paragraph of page 5 of the Office Action, the Examiner acknowledges:

Martin does not explicitly teaches [sic] matching object identifiers with corresponding object identifiers related to the object identification information contained in the converted user and course information, and storing the unmatched object identifier for manual handling and the course information form a source data in an e-learning model to a target data base in a learning management system. (emphasis added)

Inexplicably, after admitting that Martin does NOT teach or mention an e-learning model to a target data base in a learning management system, the Examiner refers to the Prompt reference which also does NOT teach or mention an e-learning model to a target data base in a learning management system. Accordingly, the Prompt reference fails to cure the failures of Martin.

Instead, on page 5, second full paragraph, the Examiner incorrectly asserts:

Prompt discloses matching the object identifier with corresponding object identification information contained in the converted source data if there is an existing directory containing object identifiers related to the object identification information contained in the converted source data (as corresponding to this is contrasted with conventional LDAP directories which require data to be extracted from the authoritative source of the information and transformed into a format matching the LDAP schema of the directory...) (Col. 16, lines 55-62). This suggests the concept of matching [sic] object of the convert source into the object of LDAP format and obviously the unmatched have to be manually handled and stored.

For the convenience of the Honorable Board, a verbatim reproduction of the recited portion of Prompt is provided herein:

In accordance with the present invention, the VDS eliminates data replication and synchronization issues by not requiring that any data be held within the directory itself. Requests from LDAP clients return live data from the authoritative source, so that the VDS handles schema transformation automatically. This is contrasted with conventional LDAP directories which require data to be extracted from the authoritative source of the information and transformed into a format matching the LDAP schema of the directory. With past methods, the data had to be loaded into the directory using LDIF on a periodic basis, and in order to maintain current information in the directory, this process must be repeated on a regular basis.

Of note, the foregoing passage from Prompt makes no reference to the terms “e-learning model” and/or a “learning management system” and/or “user information” and/or “course information” or any similar such concept as recited in claim 1 and described in paragraph [0011] of Appellants’ specification. Rather, Prompt only refers to a hierarchical/relational translation system for enabling information from unrelated heterogeneous relational computing systems to be accessed, navigated, searched, browsed, and shared over a hierarchical computing system.

Despite the Examiner’s assertion that it would have been obvious to modify Martin to obtain “matching object identifiers with corresponding object identification information” contained in the converted user and course information if there is an existing directory containing object identifiers related to the object identification information contained in the

converted user and course information” (emphasis added), the Examiner has failed to establish that the applied art teaches all features of the claimed invention. Specifically, the Examiner’s analysis ignores “**user information and course information from a source database in an e-learning model**” and “**matching object identifiers** with corresponding object identification information **contained in the converted user and course information**” as claimed. Furthermore, the Examiner’s analysis ignores the “**wherein storing unmatched object identifiers for manual handling** comprises further creating a file containing the unmatched object identifiers having a format similar to the converted user information and course information.”

In a failed attempt to correct the error, the Examiner refers to the Whitehurst reference for the proposition of “learning strategies”. Whitehurst discloses a learning method and system that assess a learner’s understanding of the subject matter and the learner’s preferred learning style by presenting and reviewing the information in various types of teaching strategies and then selecting the teaching strategies in which the student learns best. In Whitehurst, as the student responds to questions presented during the course, a learning bias model is developed for the learner based on which teaching styles provide the best level of comprehension for the learner and then presents concepts from the course within those learning strategies most suitable to the student. **Significantly, Whitehurst does not address the conversion of learning data, i.e., “user information and course information”.**

The Examiner has engaged in the “impermissible hindsight” that the Supreme Court has consistently cautioned the fact finder to avoid.

A factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning. See *Graham*, 383 U.S. at 36, 86 S.Ct. 684 (warning against a “temptation to read into the prior art the teachings of the invention in issue” and instructing courts to “ ‘guard against slipping into the use of hindsight’ ” (quoting *Monroe Auto Equipment Co. v. Heckethorn Mfg. & Supply Co.*, 332 F.2d 406, 412 (C.A.6 1964)))

KSR, 127 S.Ct. at 1742, 82 USPQ2d at 1397.

Only the Appellants’ disclosure teaches all of the features of claims 1, 9 and 17. The Examiner has used Appellants’ disclosure as a roadmap to improperly expand the knowledge of “one of reasonable skill in the art” and, therefore, has engaged in the impermissible *ex post* reasoning. Accordingly, the Examiner has failed to designate the teachings in Martin, Prompt and Whitehurst being relied upon to state the rejection. In this regard, the Examiner’s rejection under 35 U.S.C. § 103 fails to comply with 37 C.F.R. § 1.104(C). Thus, as it will be clear to the Honorable Board, Martin, Prompt and Whitehurst fail as references to sufficiently establish a prima facie case of obviousness.

**THE REJECTION OF CLAIMS 8, 15 and 23 UNDER 35 U.S.C § 103(A) FOR OBVIOUSNESS
BASED UPON MARTIN IN VIEW OF PROMPT AND IN VIEW OF WHITEHURST AND FURTHER IN
VIEW OF HAIMOWITZ.**

Claims 8, 15 and 23 all recite the additional feature of “if more than one potential match is found creating a file containing the potential matches and re-generating the matching process.” Haimowitz cannot correct the deficiencies of the Martin, Prompt and Whitehurst references and therefore the Examiner’s rejection under 35 U.S.C. § 103 fails to comply with 37 C.F.R. §

1.104(C). Thus, as it will be clear to the Honorable Board, Martin, Prompt, Whitehurst and Haimowitz fail as references to sufficiently establish a prima facie case of obviousness.

**THE REJECTION OF CLAIMS 7, 16 and 24 UNDER 35 U.S.C § 103(A) FOR OBVIOUSNESS
BASED UPON MARTIN IN VIEW OF PROMPT AND IN VIEW OF WHITEHURST AND FURTHER IN
VIEW OF HAIMOWITZ AND FURTHER IN VIEW OF DOYLE**

Claims 7, 16 and 24 all recite the additional feature of “wherein storing unmatched object identifiers for manual handling comprises further creating a file containing the unmatched object identifiers having a format similar to the converted user information and course information.” Doyle discloses a system and method employing computer speech recognition of users' vocal tag utterances to create a catalog of the contents of user-recorded audio-video media such as VCR tapes. A vocal tag is spoken into a microphone, associated with each recorded program and stored in a database of tape contents within a VCR.

Notably, Doyle fails to teach or even mention a “learning progress” or “LMS” or “user information” or “course information” for an “e-learning model”. Accordingly, Doyle cannot correct the deficiencies of the Martin, Prompt, Whitehurst and Haimowitz references and therefore the Examiner’s rejection under 35 U.S.C. § 103 fails to comply with 37 C.F.R. § 1.104(C). Thus, as it will be clear to the Honorable Board, Martin, Prompt, Whitehurst, Haimowitz and Doyle fail as references to sufficiently establish a prima facie case of obviousness.

VIII. CONCLUSION

Based upon the foregoing, Appellants respectfully submit that the Examiner's rejections under 35 U.S.C. § 103(a) fail for the deficiencies of Martin, Prompt and/or Whitehurst and/or Haimowitz and/or Doyle. Appellants, therefore, respectfully solicit the Honorable Board to reverse the Examiner's rejections under 35 U.S.C. §§ 103(a) and 101.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 12-2158, and please credit any excess fees to such deposit account.

Date: January 28, 2008

Respectfully submitted,

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VIII. CLAIMS APPENDIX

1. A method of transforming user information and course information from a source database in an e-learning model to a target database in a learning management system, the method comprising:

converting the user and course information to a format compatible with the target database, the converted user and course information containing object identification information;

matching object identifiers with corresponding object identification information contained in the converted user and course information if there is an existing directory containing object identifiers related to the object identification information contained in the converted user and course information and loading the converted user and course information into the target database; and,

storing unmatched object identifiers for manual handling.

2. Cancelled.

3. Cancelled.

4. The method of claim 1, further comprising updating the source database to include the object identifiers contained in the existing directory if a match is found.

5. The method of claim 1, wherein the object identification information and the object identifiers relate to names of users of the learning management system.

6. (Cancelled).
7. The method of claim 1, wherein storing unmatched object identifiers for manual handling comprises further creating a file containing the unmatched object identifiers having a format similar to the converted user information and course information.
8. The method of claim 1, further comprising if more than one potential match is found, creating a file containing the potential matches and re-generating the matching process.
9. A computer-readable storage medium storing a computer program which when executed performs a method of transforming user information and course information from a source database in an e-learning model to a target database in a learning management system the method comprising:
 - converting the user and course information to a format compatible with the target database, the converted user and course information containing object identification information;
 - matching object identifiers with corresponding object identification information contained in the converted user and course information if there is an existing directory containing object identifiers related to the object identification information contained in the converted user and course information; and loading the converted user and course information into the target database; and,
 - storing unmatched object identifiers for manual handling.

10. Cancelled.
11. Cancelled.
12. The computer-readable storage medium of claim 9, wherein the method performed by the stored computer program when executed further includes updating the source database to include the object identifiers contained in the existing directory if a match is found.
13. The computer-readable storage medium of claim 9, wherein the object identification information and the object identifiers relate to names of users of the learning management system.
14. Cancelled.
15. The computer-readable storage medium of claim 9, wherein storing unmatched object identifiers for manual handling comprises further creating a file containing the unmatched object identifiers having a format similar to the converted user information and course information.
16. The computer-readable storage medium of claim 9, further comprising if more than one potential match is found, creating a file containing the potential matches and re-generating the matching process.

17. A data transformation tool for transforming user information and course information from a source database in an e-learning model to a target database in a learning management system, the tool comprising:

a data transformation utility adapted to convert the user and course information to a format compatible with the target database, the converted user and course information containing object identification information;

a data matching utility adapted to determine if there is an existing directory containing object identifiers related to the object identification information contained in the converted user and course information and to match the object identifiers with corresponding object identification information contained in the converted user and course information and to store unmatched object identifiers for manual handling; and

a data loading utility adapted to load the converted user and course information into the target database.

18. Cancelled.

19. Cancelled.

20. The data transformation tool of claim 17, wherein the data matching utility is further adapted to update the source database to include the object identifiers contained in the existing directory if a match is found.

21. (The data transformation tool of claim 17, wherein the object identification information and the object identifiers relate to names of users of the learning management system.
22. Cancelled.
23. The data transformation tool of claim 17, further comprising a file containing the unmatched object identifiers having a format similar to the converted user information and course information.
24. The data transformation tool of claim 17, further comprising a file containing potential matches if more than one potential match is found.

IX. EVIDENCE APPENDIX

No evidence submitted pursuant to 37 C.F.R. §§ 1.130, 1.131, or 1.132 of this title or of any other evidence entered by the Examiner has been relied upon by Appellants in this Appeal, and thus no evidence is attached hereto.

X. RELATED PROCEEDINGS APPENDIX

Since Appellants are unaware of any related appeals and interferences, no decision rendered by a court or the Board is attached hereto.